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CABLE ORGANIZER CABINET

FIELD OF THE INVENTION

The present invention relates to an apparatus for organizing computer cables or the like and more particularly to a cabinet for routing and storage of cables which includes an embedded power source and may be formed as part of existing office furniture.

BACKGROUND OF THE INVENTION

In practice, users of computer systems or home theatre systems have become aware of the tangling and disorganization that exists behind such systems as a result of the associated cables.

Means to route and conceal electrical wiring are well known in the art. Further, means to organize cables in an office workstation are also known. As shown in Canadian Patent No. 2,000,211, a wire management assembly comprising a housing for concealing wires, cords and cables for electrical equipment is disclosed. The housing has an opening in which wires are passed through. The housing also has an optional cover which can be removed in order to allow access to the wires. The assembly can be used in an office setting for safety and aesthetics.

Canadian Patent No. 430,039, entitled "Cable Manager", describes a cable manager for concealing electrical and telephone cables. The cable manager is made up of a base housing portion and a top closure portion. The top closure is hinged to

allow for access to the interior portion of the housing. The housing contains an entrance and an exit space for electrical wiring.

United States Patent No.5,286,919, entitled "Computer Cable Management System" reveals a system for managing communication or power cables associated with a computer system. The system is made up of cabinets that route and house cables both horizontally and vertically. The cabinet is enclosed by a door which provides for access to the internal portion of the cabinet.

Canadian Patent No. 485,971 discloses a cabinet for electronic apparatus. The electronic apparatus is housed within the cabinet and the wiring of such apparatus is passed through enclosed panels that contain openings. The wires then pass through either the top or the bottom of the cabinet in an organized manner. The wires are hidden from view when the rear doors of the cabinet are in a closed position.

United States Patent No. 6,359,217 teaches a cabinet comprised of a rear wall, side walls, top wall and bottom wall. The cabinet may have an optional hinged door attached to the front of the cabinet. Thompson et al. explain that the important feature of the cabinet is that it can receive electrical/ data conduits thorough an entry point in the cabinet, the electrical/data conduits can then be routed through the cabinet and the electrical/data conduits can be connected to ports located on a power panel within the cabinet. The power panel which is located on the side of the cabinet may be used to receive cabling from an electrical/network component. This power panel can be easily moved and can be positioned at any location along the side walls.

United States Patent No. 6,209,974 describes a back column for organizing guiding cables of an entertainment center. The column contains openings such that wires can be passed through from the television to other electronic devices and from those electronic devices to a power source. The cables running from the television to auxiliary electronic devices are concealed from view.

United States Patent No. 6,415,723 teaches a folding table or desk with a wire management structure mounted to the table top. The structure has a front panel that can be placed in an opened or closed position. The table top contains openings for wires or cables to be passed through. The wires then pass into the wire management structure where they may be plugged into power receptacles.

In the known art, as described above, there exist systems made up of a housing or cabinet that allow cables to enter and exit via an opening. The cabling is concealed from view once it has entered the housing or cabinet. The known art does not contain a power source fixed within the cabinet or housing and therefore does not allow for only one power cable to exit the cabinet. Additionally, the known art does not provide an aesthetically pleasing enclosure designed to integrate or blend with the surrounding furniture.

SUMMARY OF THE INVENTION

An object of the present invention is to provide an apparatus that allows for the routing and storage of cables associated with a computer system or the like in

a hidden and organized fashion while providing power supply means to which power cables may be connected.

Another object of the present invention is to provide an apparatus that allows for the routing and storage of cables associated with a computer system or the like in a hidden and organized fashion while providing power supply means to which power cables may be connected while eliminating the unsightly grouping of cables that typically exist and removing the associated tripping hazard or the possibility of feet of a user of the computer system becoming tangled in the cables.

Other objects and advantages of the present invention will become apparent from a careful reading of the detailed description provided herein, within appropriate reference to the accompanying drawings.

According to one aspect of the present invention, there is provided a cabinet adapted to organize electrical cables comprising: a base for supporting the cabinet on a substantially planar surface; a rear panel; a top panel; oppositely arranged side panels; a front panel; said rear, top, front and side panels arranged to enclose an interior portion of said cabinet; and power supply means; wherein: the front panel includes an opening allowing access to the interior portion of the cabinet, the opening comprising a door adapted to close the opening; each of the top and side panels comprise a planar surface including a plurality of openings through which electrical cables may pass; and the power supply means is adapted such that only one power cable need pass to the exterior of the cabinet to be plugged into a live power

receptacle. The power supply means, for instance a power bar, may be fixed inside the cabinet or removable and is advantageously located on the base or the front side or rear panels to enable additional devices to be efficiently arranged and located in a variety of configurations. The cabinet configuration provides adequate ventilation for the enclosed equipment in order to ensure that regulatory standards are satisfied. The cabinet is advantageously configured in the dimensions of about two feet in height, two feet in length and five inches in width. Most of the openings are advantageously configured in dimensions of about 1.5 inch diameter, with one larger end opening having a diameter of about 2.5 inches.

According to a second aspect of the present invention, there is provided a desk comprising a cabinet adapted to organize electrical cables comprising: a base for supporting the cabinet on a substantially planar surface; a rear panel; a top panel; oppositely arranged side panels; a front panel; the rear, top, front and side panels arranged to enclose an interior portion of said cabinet; and power supply means; wherein: the front panel includes an opening allowing access to the interior portion of the cabinet, the opening comprising a door adapted to close the opening; each of the top and side panels comprise a planar surface including a plurality of openings through which electrical cables may pass; and the power supply means is adapted such that only one power cable need pass to the exterior of the cabinet to be plugged into a live power receptacle.

BRIEF DESCRIPTION OF THE DRAWINGS

Preferred embodiments of the present invention will now be described with reference to the accompanying drawings, wherein:

FIG. 1 is a perspective side view of a first embodiment of the cable organizer of the present invention;

FIG. 2 is a cross-sectional view of the cable organizer as shown in Fig. 1;

FIG. 3 is a front view of a second embodiment of the cable organizer of the present invention; and

FIG. 4 is a top view of the cable organizer as shown in Fig. 3;

DETAILED DESCRIPTION OF THE DRAWINGS

As shown in FIG. 1, the cabinet according to the present invention is comprised of a base 2, upon which a front panel 3, a rear panel 1, a left panel 12, and a right panel 4 extend upwardly and all join to a top panel 5. In this arrangement, the base 2, front panel 3, rear panel 1, left panel 12, right panel 4 and top panel 5 enclose a three dimensional space within the cabinet.

The front panel 3 includes an opening having a door left panel 8 and a door right panel 13 which may be opened to arrange the contents of the cabinet and later closed to conceal the contents.

Within the cabinet, mounted on the base 2, there is a power supply means 7. The power supply means 7 comprises a plurality of ports into which male ends of electrical power cords may be inserted. A single power cord 9 passes through a port 14 on the side panel 4 to be plugged into an external live power receptacle. The power

supply means 7 is fixed or removable and can alternatively be located on the front, side or rear panels to enable additional devices to be efficiently arranged and located in a variety of configurations. For instance, the power supply means 7 may be a power bar disposed on one side of the base 2 (as shown in Figure 1) so as to permit the inclusion, if desired, of a second power bar or the presence of a modem, transformer or other equipment.

The left side panel 4, right side panel 12, and top panel 5 comprise a plurality of ports 6 through which electrical cables may be passed into and out of the cabinet. These ports may include closure means when not utilized. The ports 6 are advantageously configured in the dimensions of about 1.5 inch diameter, optionally with one larger port at the end with a diameter of about 2.5 inches.

FIG. 2 is a cross-sectional view of the cabinet as shown in FIG. 1 showing an open port 15 and a closed port 16. The circular ports as shown include covers comprised of a first fixed semi-circular portion and a second rotatable semi-circular portion. When the rotated semi-circular portion is arranged so as to correspond entirely with the fixed semi-circular portion, the cover is said to be in an open position. When the rotated semi-circular portion is arranged so as to be entirely opposite the fixed semi-circular portion, the cover is said to be in a closed position. The cabinet configuration provides adequate ventilation for the enclosed equipment in order to ensure that regulatory standards are satisfied, such as C.S.A. and U.L. standards.

FIG. 3 shows the second embodiment of the present invention wherein the cabinet of the present invention is arranged as a portion of a desk. As shown, the front panel 3 of the cabinet is present near the back of the central portion of the desk. Cables from a computer monitor, keyboard, mouse, or the like may be passed through the top surface of the desk 11 and into the interior of the cabinet. Also shown in FIG. 3 are the door left panel 8 and the door right panel 13, each in the closed position. The power supply means 7 is shown in the interior of the cabinet. Cable from the computer monitor, keyboard, mouse, or the like pass into the cabinet through to top surface of the desk 11 and out from a side of the cabinet to a side portion 10 of the desk. Within this side portion 10 a computer central processing unit is found and the cables may be connected to the computer central processing unit.

FIG. 4 is a top view of the desk shown in FIG. 3. As shown, the top panel 4 of the cabinet forms part of the top surface of the desk 11. A plurality of ports 6 are embedded into the top panel 4 and allow cable to pass through and into the cabinet. The single power cord 9 is connected to the power supply means and passes through the rear panel of the desk to be inserted into a live power receptacle.

While the present invention has been described with particular reference to preferred embodiments, the protection sought is to be limited only by the terms of the claims that follow.

INDUSTRIAL APPLICABILITY

The apparatus taught herein generally provides improved means for organizing computer cables or the like and more particularly for a cabinet for routing and storage of cables which includes an embedded power source and may be formed as part of existing office furniture.